


BORING LOG										Boring No.: B-2						
										Page No.: 1 of 2						
GeoDesign, Inc. P.O. Box 699 Windsor, VT 05089 Phone: 802-674-2033; Fax: 802-674-5943										1233 Shelburne Rd., Suite 360 So. Burlington, VT 05403 Phone: 802-652-5140						
Project Name: Beebe Pond Culvert BR #98 VT Rt 30 Hubbardton, VT										File No.: 837-31.8						
Boring Company: TransTech Drilling Services Foreman: John Leorhardt GeoDesign Rep.: Alan Baribault Date Started: December 21, 2011 Date Finished: December 21, 2011 N. Coordinate: _____ E. Coordinate: _____ Ground Surface Elevation (feet): 630 Station: _____ Offset: _____										Checked By: DTH						
Sample Information										Groundwater Observations						
Depth (ft)	Casing Blow/ft	Number	Type	Penetration (inches)	Recovery (inches)	Blows / 6 inch Interval				Coring Time (min)	Moisture Content (%)	Date	Depth (ft)	Elev. (ft)	Notes	
						0 - 6	6 - 12	12 - 18	18 - 24							
10	S1	SS	18	12	0.5	12	11	12								
15	S2	SS	24	14	2	14	9	11	8							Wet sample.
20	S3	SS	24	2	4	9	6	5	9							in HSA.
25	S4	SS	24	0	6	6	11	12	14							
30	S5	SS	24	14	8	3	6	9	5							
35	S6	SS	24	7	10	12	12	5	3							
40	S7	SS	24	6	12	4	2	3	3							
45	S8	SS	24	10	14	6	8	6	6							
50	S9	SS	24	14	16	3	10	8	9							
55	S10	SS	24	10	18	4	43	10	13							
60	S11	SS	24	4	20	5	10	20	21							
65	S12	SS	16	6	22	14	23	504*								
70	S13	SS	24	16	24	21	16	23	21							
75	S14	SS	24	15	26	12	22	25	23							
80	S15	SS	24	16	28	16	20	28	24							

APPROX. EL OF BOTTOM OF NEW BOX CULVERT

BOTTOM OF CULVERT

Strata Description	Symbol	Sample Description
Asphalt Pavement		S1) Medium dense; 3 inches frozen fine to medium SAND, little silt; 3 inches reclaimed asphalt pavement (no sample); brown fine to coarse SAND, little (-) silt, trace fine to coarse Gravel (1 piece coarse in spoon tip), moist.
Fill (Silty Gravelly Sand with inferred cobbles / boulders)		S2) Medium dense, brown fine to coarse SAND, some fine to coarse gravel, little (-) silt, moist.
Silty Sand		S3) Medium dense, black fine to coarse SAND, little silt, trace fine gravel (likely slough material), moist.
Silty Gravelly Sand with inferred cobbles / boulders		S4) Medium dense, no recovery.
		S5) Medium dense, brown fine to coarse GRAVEL and fine to coarse SAND, little silt, moist.
		S6) Medium dense, similar to S5 except wet.
		S7) Loose, brown fine to coarse SAND, some (+) Clayey silt, little fine Gravel, wet.
Sandy, Gravelly Clay & Silt		S8) Medium dense / Medium; S8A (upper 4 inches): Layered, fine to coarse SAND, trace fine gravel, trace Clayey silt, wet. S8B (lower 6 inches): Gray CLAY & SILT, little fine SAND (layered), wet. PP=1.0tsf.
		S9) Stiff to very stiff, gray CLAY & SILT, some fine to coarse Sand, trace fine gravel, wet. PP=3.5 to 4.5tsf.
Gravelly Sandy Clay & Silt with occasional silt layers (Glacial Till)		S10) Very stiff, similar to S9 except trace fine to coarse Gravel (1 piece coarse gravel), PP=3.0 to 4.5 (high value was measured on coarse gravel).
		S11) Very stiff, similar to S9 except little fine to coarse Gravel. PP>4.5tsf.
		S12) Stiff to very stiff/refusal, gray CLAY & SILT, some fine to coarse Sand, little fine to coarse Gravel, wet. PP = 2 to >4.5 (low values in upper portion possibly disturbed by augers).
		S13) Very stiff to hard, gray CLAY & SILT, little fine to coarse gravel (possible pulverized

1) Ground surface elevation estimated by GeoDesign using site plan dated 9/27/2011 provided by VHB.

2) Maintained head of water in augers below 10 feet deep.

3) Depth of fill estimated.

4) Sample S2 by semi-continuous method. SPT N-value not valid per ASTM D1586.

5) Inferred cobbles 4 to 12 feet from auger chatter. Advanced past cobble/boulder from 23.3 to 24 feet.

6) Drilling resistance increased significantly below 30 feet (approximately 20 minutes from 30 to 33 feet).

Notes:


1) Water Level Readings Have Been Made At Times And Under Conditions Stated. Fluctuations Of Groundwater May Occur Due To Other Factors Than Those Present At The Time Measurements Were Made.

2) Water Level Readings Have Been Made At Times And Under Conditions Stated. Fluctuations Of Groundwater May Occur Due To Other Factors Than Those Present At The Time Measurements Were Made.

3) Sample Type Coding: A=Auger; C=Cone; D=Drive; G=Gravel; P=Plastic Sampler; SS=Split Barrel (Split Spoon); ST=Stubby Tube; Ge=Geoprobe V=Vane.

4) Properties Used: T=1-10%; L=10-20%; S=20-35%; Ad=15-30%.

5) Identification lists represent approximate boundary between material types, transitions may be graded.

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						0 - 6	6 - 12	12 - 18	18 - 24							
35	S16	SS	10	5	33	21	504*									

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BOTTOM OF CULVERT

Strata Description	Symbol	Sample Description
Gravelly Silty Sand		(cobbles), some fine to coarse Sand, wet.
Gravelly Silty Sand with occasional silt layers (Glacial Till)		S14) Dense, gray SILT and fine to coarse SAND, little (+) fine to coarse Gravel (possibly pulverized cobbles), moist.
		S15) Very stiff to hard, gray CLAY & SILT, some fine to coarse Sand, trace to little fine to coarse Gravel, very moist. PP>4.5tsf.
		S16) Hard/refusal, similar to S15.

7) Boring terminated at 33.8 feet deep with split spoon refusal on inferred cobble, boulder, or bedrock.

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3) Sample Type Coding: A=Auger; C=Cone; D=Drive; G=Gravel; P=Plastic Sampler; SS=Split Barrel (Split Spoon); ST=Stubby Tube; Ge=Geoprobe V=Vane.

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PROJECT NAME: HUBBARDTON  
 PROJECT NUMBER: ER STP 0161(27)

FILE NAME: zllc290borlogs.dgn  
 PROJECT LEADER: M.A. COLGAN  
 DESIGNED BY: VTRANS  
**BORING LOGS (2 OF 2)**

PLOT DATE: 7/16/2012  
 DRAWN BY: E.A. FIALA  
 CHECKED BY: S.G. FARNSWORTH  
 SHEET 59 OF 70

